

Sobol
CLAIMS:

1. An apparatus for facilitating the connection of tubulars using a top drive, which apparatus comprises a body (2; 102) connectable to said top drive, said body (2; 102) comprising at least one gripping element (5; 105) radially displaceable by hydraulic or 5 pneumatic fluid to drivingly engage a tubular (30; 110) to permit a screw connection between said tubular and a further tubular to be tightened to the required torque.
2. An apparatus as claimed in claim 1, wherein said at least one gripping element (5; 105) has an elastomeric gripping surface incorporating projecting metal inserts or 10 saw blades capable of transmitting said torque.
3. An apparatus as claimed in claim 1 or 2, wherein said at least one gripping element (5; 105) is movable radially outwardly from said body (2; 102) to engage the inside wall (31; 111) of said tubular (30; 110).
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4. An apparatus as claimed in claim 1, 2 or 3, wherein said body (2; 102) is connectable to a rotor (35) of said top drive in order to rotate said apparatus.
5. An apparatus as claimed in claim 1, 2, 3 or 4, further comprising a sealing 20 packer (107) for engagement with said tubular.
6. An apparatus as claimed in claim 5, wherein said sealing packer (107) can be activated by hydraulic or pneumatic fluid.
7. An apparatus as claimed in any preceding claim, wherein said body (2; 102) is 25 provided with a passage (3; 103) therethrough to allow excess fluid in said tubular to escape therefrom.
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8. An apparatus as claimed in any preceding claim, further comprising a support 30 (12) for supporting the weight of said tubular during driving engagement of the tubular by said at least one gripping element (5; 105).
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SJB/2 9. An apparatus as claimed in claim 8, wherein said support (12) is connectable to a stator of said top drive.

10. An apparatus as claimed in claim 8 or 9, wherein said support (12) is carried by 5 compensating pistons (26, 27) connectable to said top drive.

11. An apparatus as claimed in claim 10, wherein said compensating pistons (26, 27) are pneumatically operable and are adjustable to compensate for different weights of tubular.

10 *claim 1* 12. An apparatus as claimed in ~~any preceding claim~~, wherein an upper part of said body (2) comprises a splined recess into which a splined rotor or splined connecting member (20) may be located.

15 13. An apparatus as claimed in claim 8, 9, 10 or 11, wherein said support (12) is arranged circumjacent an upper part of said body (2) with a bearing (8, 9) arranged therebetween to allow said body (2) to rotate with respect to said support (12).

20 *claim 1* 14. An apparatus as claimed in ~~any preceding claim~~, further comprising a rotary transmission (7) to allow hydraulic or pneumatic fluid to pass through said body (2; 102).

25 15. An apparatus for facilitating the connection of tubulars using a top drive, said apparatus comprising a body (102) connectable to said top drive, said body (102) comprising at least one gripping element (105) radially displaceable to drivingly engage a tubular (110) and a sealing packer (107) to inhibit, in use, fluid in said tubular from escaping therefrom.

30 16. An apparatus as claimed in claim 15, wherein said sealing packer can be actuated by hydraulic or pneumatic fluid.

17. An apparatus (201) for running tubulars (213) into a borehole, said apparatus comprising a body (202) provided with a wedge lock assembly (212) and a hydraulically operable grapple (210) to mechanically grip the inside wall of a tubular (213) to be run into, or withdrawn from, the borehole, said grapple incorporating positive locking means to prevent inadvertent release of said grapple, said body further comprising means (214) to prevent spillage of drilling fluid when the body is withdrawn from the tubular, a sealing packer (215) for engagement with the tubular to permit fluid to be circulated within the tubular, and a stabbing guide (216).

10 18. An apparatus as claimed in claim 17, wherein the grapple (210) is connected to a hydraulic piston assembly (204,207) to permit engagement of the grapple with the inside walls of the tubular (213) to enable mechanical lift to be applied to the tubular.

15 19. An apparatus as claimed in claim 18, wherein the hydraulic piston assembly (204,207) is biased towards a failsafe position by a compression spring (209).

20 20. An apparatus as claimed in claim 18 or 19, wherein the hydraulic piston assembly incorporates a cylinder (204) which is either formed integrally with the body (202) or is attached thereto by threading or flanging.

25 21. An apparatus as claimed in claim 18, 19 or 20, wherein the body (202) is provided with a slip-ring assembly to enable hydraulic fluid to be supplied to the hydraulic piston assembly (204,207) whilst at the same time permitting rotation of the body and the tubular (213) thereon.

22. An apparatus as claimed in ^{claim 17} any one of claims 17 to 21, which is adapted to be used with different sizes of tubular.

30 23. An apparatus as claimed in ^{claim 17} any one of claims 17 to 22, wherein the body (202) is fitted with a bull-nose guide (216) to prevent damage to the top of the tubular when the body is introduced into the tubular.

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24. An apparatus as claimed in any one of claims 17 to 23, wherein the body (202) is provided with a through bore (217) to permit circulation of fluid.

25. A top drive having an apparatus as claimed in any preceding claim attached thereto.

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